

AMENDMENTS TO THE CLAIMS

1.(currently amended): A node in a ring network system in which a plurality of insertion nodes are connected in loop through a ring transmission path, comprising:

~~a storage unit having storage areas according to insertion nodes~~ an every-insertion-node oriented buffer unit having individual buffer memories at which arrived packets are inserted into said ring transmission path, and accumulating the packets in said ~~storage areas~~ according to said insertion nodes; and individual buffer memories;

a read control unit reading the packets in a fair way on the basis of predetermined weights respectively from said ~~storage areas according to said insertion nodes~~ individual buffer memories; and

a storage module stored with mappings between said insertion nodes and weight values different from each other as the predetermined weights that are proportional to the number of connections.

2.(currently amended): A node according to claim 1, further comprising:

an identifying unit identifying said insertion node at which the packets are inserted into said ring transmission path on the basis of specifying information contained in the packet; and

an accumulation control unit accumulating the packets in the corresponding buffer memory ~~every insertion node oriented storage area~~ on the basis of a result of identifying said insertion node.

Claims 3-6. (cancelled)

7.(currently amended): A node according to claim 2, wherein the buffer memory of said every-insertion-node oriented buffer unit storage area of said storage unit is physically segmented into a plurality of areas, and

said accumulation control unit permits only the packet from said corresponding insertion node to be written to each of the segmented areas of the ~~every-insertion-node oriented storage area~~ buffer memory.

8.(currently amended): A node according to claim 2, wherein the individual buffer memories of said every-insertion-node oriented buffer unit storage areas of said storage unit are provided by dynamically logically segmenting a shared storage area, and

said accumulation control unit writes the packet from said corresponding insertion node to each of the individual buffer memories ~~every-insertion-node oriented storage areas~~ into which the shared storage area is dynamically logically segmented.

9.(currently amended): A node according to claim 2, wherein said identifying unit identifies said insertion node at which the packet is inserted into said ring transmission path on the basis of an ~~the~~ insertion node number as the specifying information contained in the packet.

10.(currently amended): A node according to claim 2, further comprising a storage module stored with mappings between traffic identifiers of the packets and the insertion node numbers, and

wherein said identifying unit identifying said insertion node at which the packet is inserted into said ring transmission path on the basis of an the insertion node number corresponding to the traffic identifier, as the specifying information contained in the packet, which is obtained by referring to said storage module.

11.(currently amended): A packet control method in a ring network system in which a plurality of insertion nodes are connected in loop through a ring transmission path, comprising:

providing individual memories ~~storage areas according to insertion nodes~~ at which arrived packets are inserted into said ring transmission path, and accumulating the packets in said storage areas according to said insertion nodes; ~~[[and]]~~

reading the packets in a fair way on the basis of predetermined weights respectively from said ~~storage areas according to said insertion nodes~~ individual memories; and storing mappings between said insertion nodes and weight values different from each other as the predetermined weights that are proportional to the number of connections for inserting the packets.

12.(currently amended): A packet control method according to claim 11, further comprising:

identifying said insertion node at which the packets are inserted into said ring transmission path on the basis of specifying information contained in the packet; and

accumulating the packets in the corresponding buffer memory ~~every insertion node-oriented storage area~~ on the basis of a result of identifying said insertion node.

Claims 13-16.(cancelled)

17.(currently amended): A packet control method according to claim 12, further comprising permitting only the packet from said corresponding insertion node to be written to each of a plurality of physically segmented areas of the ~~every insertion node oriented storage area~~ buffer memory.

18.(currently amended): A packet control method according to claim 12, further comprising writing the packet from said corresponding insertion node to each of the buffer memories ~~every insertion node oriented storage areas~~ into which a shared storage area is dynamically logically segmented.

19.(currently amended): A packet control method according to claim 12, further comprising identifying said insertion node at which the packet is inserted into said ring transmission path on the basis of an ~~the~~ insertion node number as the specifying information contained in the packet.

20.(currently amended): A packet control method according to claim 12, further comprising:

storing mappings between traffic identifiers of the packets and the insertion node numbers; and

identifying said insertion node at which the packet is inserted into said ring transmission path on the basis of an ~~the~~ insertion node number corresponding to the traffic

identifier, as the specifying information contained in the packet, which is obtained by referring to a content of the storage.